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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,758	01/26/2004	Makoto Yoshino	4041K-000169	1893
27572 7590 09/02/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303				
EXAMINER				
KEE, FANNIE C				
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3679				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/765,758

**Applicant(s)**

YOSHINO ET AL.

**Examiner**

Fannie Kee

**Art Unit**

3679

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-11, 43-45 and 47-52 is/are pending in the application.
- 4a) Of the above claim(s) 9, 49, 51 and 52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7, 8, 10, 11, 43-45, 47, 48 and 50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/16/09 has been entered.

***Election/Restrictions***

2. Claims 43-45 are herewith rejoined by Examiner for examination on the merits.
3. Newly submitted claims 49, 51, and 52 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Claim 49 is directed to a different embodiment where a bent portion is formed in a portion of the double pipe. The elected embodiment shows the joint member having a bent portion but not the double pipes.

Claim 51 is directed to a different embodiment where a cylindrical male portion protrudes from the body of the joint member in which the outer pipe is connected. The elected embodiment shows a portion of the body of the joint member being connected in the outer pipe and not vice versa.

Claim 52 is directed to a different embodiment where a cylindrical female portion protrudes from the body of the joint member in which the outer pipe is connected. The elected embodiment shows a portion of the body of the joint member being connected in the outer pipe and not vice versa.

4. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 49, 51, and 52 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Objections***

5. Claim 7 is objected to because of the following informalities: add the word --of-- before the words "the outer pipe" in line 6 and replace the word "is" with --being-- in line 9.

Correction is required.

6. Claim 8 is objected to because of the following informalities: replace the word "joins" with --joining-- in line 3 and replace the word "is" after the words "the outer pipe" with --being-- in line 4.

Correction is required.

7. Claim 47 is objected to because of the following informalities: replace the word “jointing” with —jointed— in line 4 and delete the semi-colon after the word “wherein” in line 5.

Correction is required.

8. Claim 50 is objected to because of the following informalities: add the word --a-- before the word “fluid” in lines 1-2.

Correction is required.

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 8, 43-45 and 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites “the plastically deforming means joins the inner pipe to the joint member by expanding an end portion of the inner pipe, and the outer pipe is joined to the joint member by contracting an end portion of the outer pipe”. Is Applicant referring back to the same “end portion” as the end portion which was recited in claim 7 from which claim 8 depends? Or is Applicant referring to the other end portion of the inner pipe and the outer pipe? Examiner is interpreting that Applicant is referring back to the same end portion of the inner pipe and the outer pipe as those end portions recited in claim 7.

Regarding claim 43, the phrase "step-like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "step-like"), thereby rendering the scope of the claim(s) unascertainable.

Claim 50 recites "wherein fluid of high pressure circulates in said inner pipe and fluid of low pressure circulates". It appears that there is structure missing from this claim. Examiner is interpreting that the remaining portion of claim 50 should read "and fluid of low pressure circulates" --in said outer pipe--.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claim 7, 8, 10, 43, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Kosugi et al U.S. Patent No. 4,796,924.

With regard to claim 7, and as seen in Figure 12, Kosugi et al disclose a double pipe structure in which an inner pipe (108, 308) for circulating fluid of high pressure is disposed in an outer pipe (106) for circulating fluid of low pressure and the inner and the outer pipe are formed

differently from each other and are joined to a joint member (116e, 30e, 272) at respective end portions, wherein

an end portion of the inner and an end portion the outer pipe each define plastically deforming means for joining the joint member to the inner and outer pipes; and

the end portion of the inner pipe extending from the joint member is engaged with an insertion hole (320) defined by the joint member by means of expanding the inner pipe at a side of the joint member.

With regard to claim 8, and as seen in Figure 12, Kosugi et al disclose the joint member (116e, 30e, 272) including a port (area at 25) connected to another pipe, the plastically deforming means joins the inner pipe to the joint member by expanding an end portion of the inner pipe, and the outer pipe is joined to the joint member by contracting an end portion of the outer pipe.

With regard to claim 10, and as seen in Figure 12, Kosugi et al disclose a seal member (236) being interposed in a joint portion of the joint member and the inner pipe or in a joint portion of the joint member and the outer pipe.

With regard to claim 43, and as seen in Figure 12, Kosugi et al disclose a double pipe structure in which an inner pipe for circulating fluid of high pressure is disposed in an outer pipe for circulating fluid of low pressure and the inner and the outer pipe are formed differently from each other and are joined to the joint member at respective end portions, wherein

the inner (108, 308) and the outer pipe (106) are joined to the joint member by plastically deforming means,

the joint member (116e, 30e, 272) includes a cylindrical portion (306) formed at an end of the joint member and connected to the outer pipe, an insertion hole (area at 320), into which the inner pipe is inserted, is formed step-like toward the other end of the joint member inside the joint member, and a port (250) for refrigerant of low pressure and a port (port next to 274) for refrigerant of high pressure are connected to another pipe,

the inner pipe is arranged so as to protrude from an end portion of the outer pipe, inserted into the insertion hole through the cylindrical portion, and joined to the step-like insertion hole at the other end of the joint member by means of drawing for expanding an end portion or by means of bead pressure-contact machining, and

the outer pipe is joined to the cylindrical portion formed at the end of the joint member by means of drawing for contracting an end of the outer pipe.

With regard to claim 44, and as seen in Figure 12, Kosugi et al disclose a seal member (236) being interposed in a joint portion of the joint member and the inner pipe or in a joint portion of the joint member and the outer pipe.

13. Claims 47 and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by Brunella U.S. Patent No. 5,265,652.



With regard to claim 47, and as seen in Figure 3, Brunella discloses a double pipe structure comprising:

a double pipe in which an inner pipe (18) is laid in an outer pipe (16), said inner pipe and said outer pipe being formed differently from each other; and

a joint member (20) jointing to an end portion of said inner pipe and an end portion of said outer pipe; wherein;

said inner pipe is jointed to said joint member at a state which said inner pipe is arranged eccentric with respect to said outer pipe.

With regard to claim 48, and as seen in Figure 3, Brunella discloses said joint member (20) having a port (port at end of 20 and 44) and an extending passage extending from said outer pipe and communicating with the port, and wherein said inner pipe is arranged eccentric with respect to said outer pipe on an opposed side to the port.

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 11 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosugi et al in view of Inaba U.S. Patent No. 4,732,414.

With regard to claim 11, Kosugi et al disclose a double pipe structure with an inner pipe, an outer pipe and a joint member but does not disclose that the rigidity of the inner pipe is lower than the rigidity of the outer pipe. Inaba teaches that it would be obvious to have a double pipe structure where the inner and outer pipes would have different rigidities especially in the case where a combustible or poisonous gas is being carried.

Therefore, it would have been obvious to one of ordinary skill in the art to have modified the double pipe structure of Kosugi et al with the teaching of Inaba to create a double pipe structure that would be capable of carrying dangerous fluids and preventing any leaks to the outside atmosphere as suggested by Inaba (column 1, lines 24-31).

With regard to claim 45, Kosugi et al disclose a double pipe structure with an inner pipe, an outer pipe and a joint member but does not disclose that the rigidity of the inner pipe is lower than the rigidity of the outer pipe. Inaba teaches that it would be obvious to have a double pipe structure where the inner and outer pipes would have different rigidities especially in the case where a combustible or poisonous gas is being carried.

Therefore, it would have been obvious to one of ordinary skill in the art to have modified the double pipe structure of Kosugi et al with the teaching of Inaba to create a double pipe structure that would be capable of carrying dangerous fluids and preventing any leaks to the outside atmosphere as suggested by Inaba (column 1, lines 24-31).

16. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brunella.

With regard to claim 50, Brunella discloses a fuel transfer pipe system wherein different fluids flow within the inner and outer pipes but does not expressly disclose that fluid of high pressure circulates in said inner pipe and fluid of low pressure circulates in said outer pipe.

As Brunella relates to fluids flowing within inner and outer pipes, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a fluid of high pressure circulate in the inner pipe and a fluid of low pressure circulate in the outer pipe for improved multiaxial fluid transfer.

#### ***Response to Arguments***

17. Applicant's arguments with respect to claims 7, 8, 10, 11, 43-35, 47, 48, and 50 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fannie Kee whose telephone number is (571) 272-1820. The examiner can normally be reached on 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron M Dunwoody/  
Primary Examiner, Art Unit 3679

/F. K./  
Examiner, Art Unit 3679  
August 31, 2009